been indicated by Wygodzinsky (1949). *A. kraepelini* agrees with *dubia* by the number of bristle-combs on the eighth urotergite, but seems to differ by the presence of a median bristle-comb on urosternite VIII of the male, and the number of macrochaetae in this and the remaining median ventral bristle-combs. Difference in total size (*kraepelini* 14, *dubia* 9 mm) may be partly responsible for differences in the above and other meristic characters.

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A NEW GENUS AND SPECIES OF EUAESTHETINAE FROM CHILE

(Coleoptera: Staphylinidae)

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The purpose of this paper is to describe a new genus and species of Euaesthetinae from Chile, to show some of its relationships to the rest of the subfamily, and to point out some of its primitive features.[1]

I wish to express my thanks to Mr. L. Peña of Santiago, Chile, who supplied the material and to Mr. Robert Banfill of Columbus, Montana, for technical assistance.

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Alzadaesthetus new genus

(Figures A–M)

Distinguished from all other genera by the shape of the head, pronotum, and elytra together with the tarsal formula. Most closely related to *Ctenomastax* Kraatz from which it can be distinguished by its winglessness and the 5–5–5 tarsal formula.

Head shaped as in Fig. A. Antennae insert at corner of the vertex with a slight raised edge to the vertex at the point of insertion. Eyes relatively large. Neck prominent and smooth. Gular sutures confluent along their entire length. Antennae 11-segmented, shaped as in Fig. G, with two large basal segments followed by five almost equally small segments then followed by two smaller more angular segments and the three progressively larger segments. The last three segments give the impression of a club. Mandibles large, toothed, shaped as in Fig. I. Maxillae shaped as in Fig. H; palpi large and conspicuous, three-segmented. Labium small, shaped as in Fig. F; palpi three-segmented. Labrum shaped as in Fig. E, with fifteen teeth along the anterior edge.

Pronotum slightly wider than the head, cylindrical in form, shaped as in Fig. A. Elytra a little wider than the pronotum, shaped as in Fig. A. Prosternum trapezoidal in shape, relatively wide. Prothoracic coxal cavities very nearly contiguous, separated by only a very narrow process; coxal cavities open behind. Mesothoracic coxal cavities nearly contiguous, separated by a narrow, pointed mesosternal process bearing a carina along the midline. Metasternum as long as the mesosternum, feebly punctate, with no unusual features. Secondary wings absent; elytra fused along the midline. Prothoracic leg shaped as in Fig. B; coxae with processes longer than the coxae themselves. Mesothoracic legs shaped as in Fig. C. Metathoracic legs shaped as in Fig. D. Meso- and metathoracic legs with ctenidia at the edge of the tibiae. Tarsal formula 5-5-5.

Overall abdominal shape subconical with the dorsal surface arcuate; narrow paratergites present on segments III–VII; abdominal sternite III carinate along the midline, all other sternites smooth in the female; sternite IV of male has two short processes on the posterior edge (Fig. L); sternite VIII of male with a large indentation on the posterior edge shaped as in Fig. M; sternum VIII of female unmodified; segment IX complex of female shaped as in *Turellus* Sharp; sternum IX of male modified into a dagger-shaped lobe. Male genitalia bulbous, heavily sclerotized; presumably variable specifically.

Type of the genus: Alzadaesthetus chilensis Kistner, described below.

Alzadaesthetus chilensis Kistner, new species

(Figures A–M)

Distinguished from all other species by the sculpture of the pronotum and elytra together with the shape of the male genitalia.

Head, pronotum, elytra, and abdomen dark reddish brown in color; legs and mouthparts yellowish brown. Head, pronotum, elytra, and abdomen with large punctures scattered over their surfaces; density and shape as

shown in Fig. A. Each puncture except for a row of eight along the base of the pronotum contains a short, thin, yellow seta. Neck smooth behind the occipital suture. Pronotum also with a broad depressed area in the center (indicated by dotted lines in the figure). Head, pronotum and elytra shaped as in Fig. A. Abdominal sternite IV of male shaped as in Fig. L with two processes on the posterior border. Abdominal sternite VIII of male shaped as in Fig. M, note the large indentation on the posterior border. Aedeagus heavily sclerotized, shaped as in Fig. J when viewed from the lateral surface; anterior portion ventrally produced, so that the median ventral fossa is very close to the basal portion (indicated in dotted lines, small circle); anterior edge with a broadly indented area with a circular shape (indicated in dotted lines, large circle); parameres thin, inserted under the ventrally produced aedeagus; ventral view of aedeagus and parameres shaped as in Fig. K.

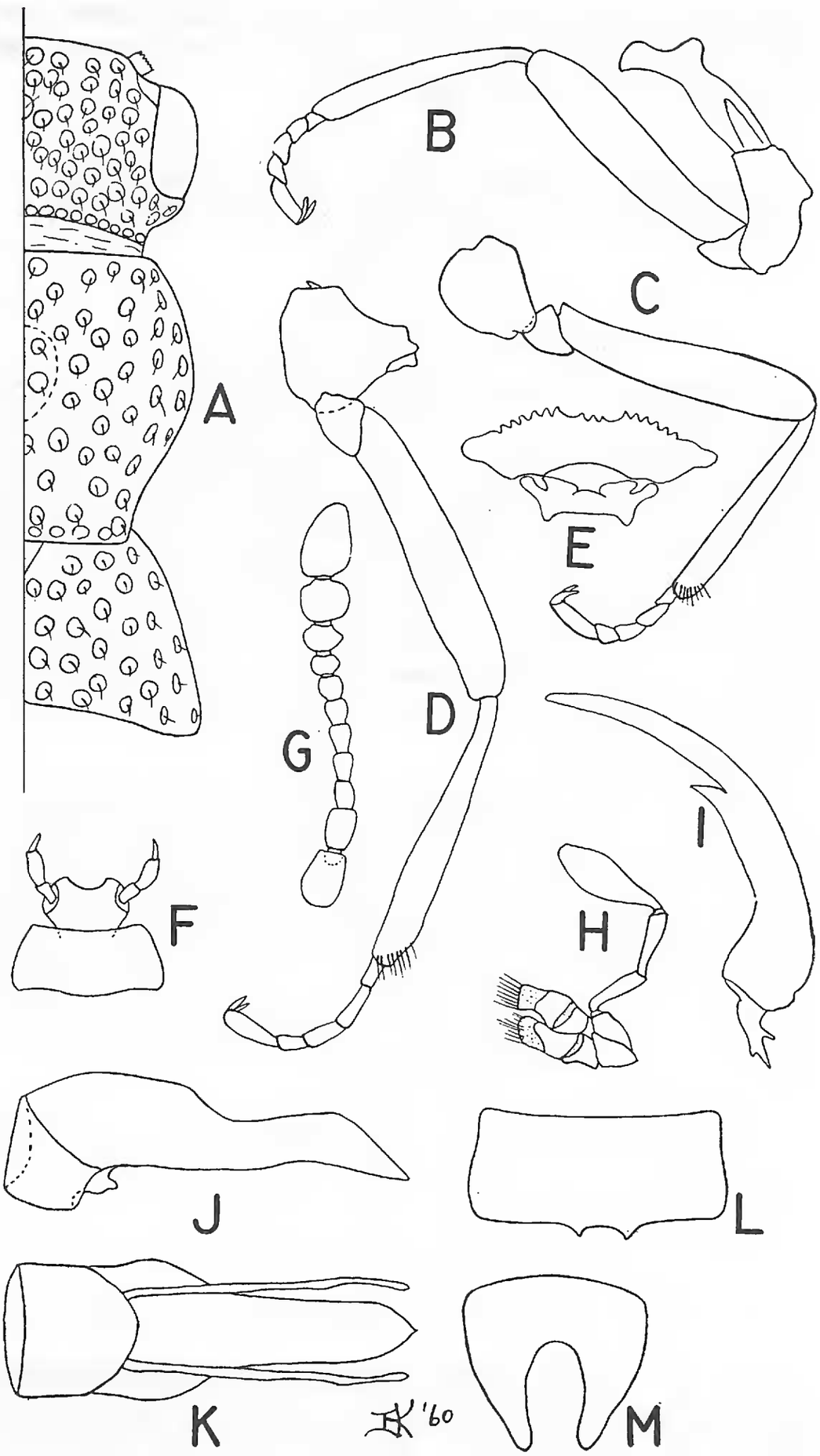
Head length, 0.29–0.32 mm.; pronotum length, 0.52–0.55 mm.; elytra length, 0.24–0.32. Number measured, 5.

Holotype male (No. e 988) from CHILE: PUYEHUE, RIO GOL-GOL, 350 M., March 1955, collected by L. Pena. In the collection of the author to be eventually deposited in the collection of the Chicago Natural History Museum. Three males, one female (1 male and 1 female on micro-slides), same data as the holotype and designated as paratypes are in the collection of the author.

This genus presents certain problems in interpreting the phylogeny of the Euaesthetinae. It has certain primitive features which consist of the following: The 5–5–5 tarsal formula which is unique within the Euaesthetinae; all other genera have at least one of the pair of tarsi with fewer than five subsegments. The relatively large antennae with well-developed segments which are closely similar to those found in *Ctenomastax* Kraatz. The large well-developed eyes and the large punctures with fine setae in each. Specialized features are the lack of secondary wings and the fusion of the elytra along the midline. The precise phylogenetic significance of the genus has not as yet been determined, but the presence of this genus tends to show that wing-loss must have occurred quite a few times in the phylogeny of the

EXPLANATION OF FIGURES

Alzadaesthetus chilensis Kistner: Fig. A, head, pronotum, and elytra, dorsal, right half; fig. B, prothoracic leg; fig. C, mesothoracic leg; fig. D, metathoracic leg; fig. E, labrum; fig. F, labium; fig. G, antenna; fig. H, maxilla; fig. I, mandible; fig. J, male genitalia, lateral view with parameres removed; fig. K, male genitalia, ventral view; fig. L, abdominal sternite IV, showing protuberances on the posterior border; fig. M, abdominal sternite VIII of male.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Euaesthetinae and while *Alzadaesthetus* shows this feature it is the most primitive genus of the subfamily and represents yet another relict genus in the fauna of Chile.

A NOTE ON SOME INSECTS ASSOCIATED WITH XYLOCOPIDAE IN THE EASTERN CAPE PROVINCE, SOUTH AFRICA

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In October 1960 some dead and dying branches of seringa *(Melia azerdarach* L.*)*, an exotic ornamental tree, containing the nests of a large and common species of xylocopid *Xylocopa (Mesotrichia) flavorufa* Degeer, were obtained from a Walmer, Port Elizabeth, garden. Adult carpenter bees were flying in and out of the holes in the branches at the time, while fresh bees continued to emerge for some weeks from the affected wood which had been placed in cages in the laboratory. At the same time a small species of chalcid was observed in the cages in thousands, as well as individuals of a pyralid moth which emerged daily from the xylocopid tunnels.

Several sections of the infested branches were opened and were found to be riddled with the ramifying tunnels and cells of the carpenter bee. Many of the cells contained living larvae and pupae in varying stages of development, while in others were found well-advanced but mummified larvae from which the chalcid had emerged or was emerging. Each of these parasitized larvae was a mass of chalcid pupae. It was obviously a case of polyembryony, as is so often found in larvae of the Phytometridae, and which this instance so closely resembled.

The chalcid parasite is described as a new species of *Girautella* (Encyritidae) by Doutt and Annecke (1961). There is a considerable literature on chalcids from the nests of Xylocopidae, and it is interesting to note that polyembryonic species of Encyrtidae have previously been recorded from xylocopid larvae in Java (Girault, 1919-21) and India (Mahdihassan, 1957). In the former paper there is a note by W. Roepke on these parasites which reads as follows: "Freshly emerged imagines are sometimes seen in great numbers running on the timber wherein the *Xylocopa* form galleries. They enter the holes and penetrate into the galleries till